

S/N 10/612,475

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Applicant: | deCler et al. | Examiner: | Aaron M. Dunwoody |
| Serial No.: | 10/612,475 | Group Art Unit: | 3679 |
| Filed: | July 2, 2003 | Docket No.: | 1945.185US01 |
| Customer No.: | 23552 | Confirmation No.: | 3132 |
| Title: | Coupler and Method of Making Molded Coupler | | |

APPELLANTS' BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This brief is presented in support of the Appeal filed April 12, 2007, from the final rejection of claims 1-8 and 17-19 as set forth in the final Office Action mailed October 12, 2006. Please consider and enter the following remarks.

Remarks begin at page 2 of this paper.

A **Claims Appendix** beginning at page 13 of this paper includes a copy of the claims involved in the Appeal.

An **Evidence Appendix** beginning at page 16 of this paper includes a list of any evidence entered and relied upon in the Appeal.

A **Related Proceeding Appendix** beginning at page 17 of this paper includes copies of decisions rendered by a court or the Board and any proceeding identified in the related Appeals and Interferences section.

Remarks

This brief is submitted in support of Applicants' Appeal of the final rejection of claims 1-8 and 17-19 as set forth in the final Office Action mailed October 12, 2006. Please consider and enter the following remarks.

I. Real Party of Interest

An Assignment by the inventors to Colder Products Company was recorded on July 15, 2003 at reel 014251, frame 0324. Colder Products Company is therefore the current owner and real party of interest for this Appeal.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

The status of the claims is as follows:

- claims allowed: none;
- claims objected to: none;
- claims rejected: 1-8 and 17-19;
- claims cancelled: 9-16 and 20; and
- claims withdrawn from consideration: none.

The claim being appealed is: claim 1.

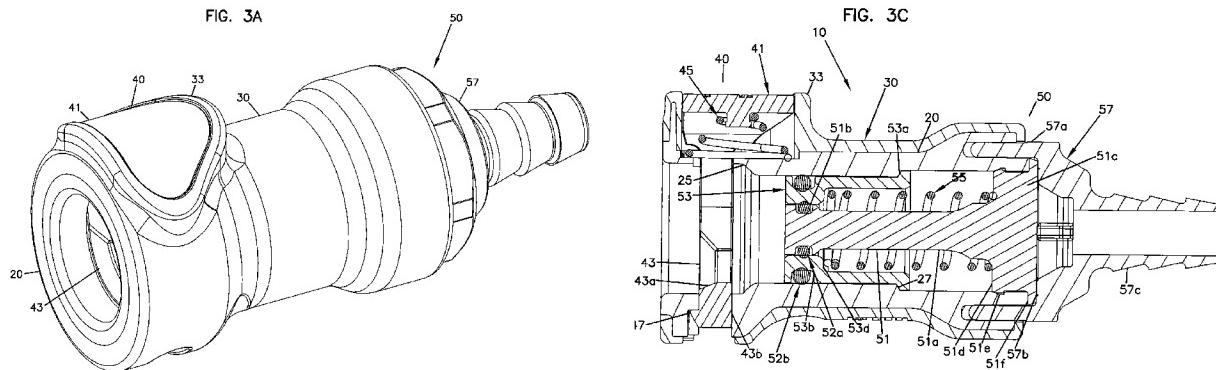
IV. Status of Amendments

All amendments filed during the prosecution of the present application have been entered.

V. Summary of the Invention

Claim 1 is directed to a coupler device for fluid transport. The coupler includes a body including an outer surface being a circumferential outer sidewall, said outer sidewall having a first end and a second end with an opening extending through said first and second ends, said body defining a slot disposed proximate one of said first end or second end, said slot extending in a direction transverse to said opening and through said outer sidewall. The coupler also includes a latch assembly including at least one outer member being disposed on said body externally exposed of said outer surface and connected with an inner member being disposed through said slot, said outer member protruding from said outer surface and reciprocating with respect to said outer sidewall, said inner member reciprocating within said slot and having an aperture corresponding with said opening, whereby said body is releasably connectable with a piece of fluid transport equipment through said inner member. The coupler further includes an overmold portion formed on said outer sidewall of said body, said overmold portion defining a material molded over said body as an additional layer, such that said overmold portion is formed substantially about said outer sidewall, said overmold portion including a shroud portion partially covering said outer member of said latch assembly, said shroud portion being a wall extending outward from the outer sidewall and adjacent and around said outer member of said latch assembly, said wall extending in a direction transverse to said outer surface, and a top portion of said wall protruding from said outer surface at least a same distance as an outermost portion of said outer member protrudes from said outer surface when the outer member is in a non-depressed state.

One example embodiment of a coupler 10 configured as recited by claim 1 is shown in Figures 3A and 3C of the present application, reprinted below.



Application, Figs. 3A and 3C. The coupler 10 includes a body 20 including an outer surface being a circumferential outer sidewall 21, the outer sidewall 21 having a first end 22 and a second end 24 with an opening 29 extending through the first and second ends 22, 24, the body 20 defining a slot 26 disposed proximate one of the first end or second end 22, 24, the slot 26 extending in a direction transverse to the opening 29 and through the outer sidewall 21.

The coupler 10 also includes a latch assembly 40 including at least one outer member 41 being disposed on the body externally exposed of the outer surface and connected with an inner member 43 being disposed through the slot 26, the outer member 41 protruding from the outer surface and reciprocating with respect to the outer sidewall 21, the inner member 43 reciprocating within the slot 26 and having an aperture corresponding with the opening 29, whereby the body 20 is releasably connectable with a piece of fluid transport equipment through the inner member 43.

The coupler 10 further includes an overmold portion 30 formed on the outer sidewall of the body. Example overmold 30 includes shroud portion 33 that extends transversely outward from outer sidewall 21, and is disposed adjacent slot 26. In example embodiments, a top portion of shroud portion 33 protrudes at least a same distance as an outermost portion of the latch assembly 40 to partially cover and protect latch assembly 40 when an actuating member 41 of latch assembly 40 is in a non-depressed state. Application, p. 9, ll. 2-11; p. 14, ll. 24-27.

The coupler recited by claim 1 can be advantageous because the coupler body can be molded with tight, specific dimensions, while the overmold can form the shroud portion. The shroud portion covers and protects any irregular shapes residing outside the outer surface of the coupler body. The coupler body can be formed to avoid distortion and complex tooling adjustments to create a desired bore geometry. By forming the overmold as a separate layer outside the coupling body, the outer shape of a coupler can be modified to protect external structures disposed outside the coupler body, such as those in a latch assembly. In this manner, the need to fine-tune the coupling body back to specific dimensions can be avoided. Further, seal surfaces that can require specific dimensions, may be protected as distortion of the coupling body is prevented. The coupling body is formed as a substantially uniform and symmetrical part, where any seal surfaces and/or other assembly interfaces that require tight tolerances are preserved. In this configuration, the coupling body may be molded using standard core pins, while enabling the cycling of the part to be made faster. Application p. 15, l. 26 - p. 16, l. 12.

VI. Grounds of Rejection to be Reviewed on Appeal

Claims 1-8 and 17-19 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,890,517 to Laible.

VII. Argument

Claims 1-8 and 17-19 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,890,517 to Laible. This rejection is respectfully traversed, and reconsideration is requested.

A reference must teach each and every limitation to anticipate a claim. 35 U.S.C. § 102; MPEP 2131. Laible fails to teach each and every claim limitation. Liable therefore fails to anticipate claim 1 for the following reasons.

Claim 1 is directed to a coupler device for fluid transport. The coupler includes a body including an outer surface being a circumferential outer sidewall, said outer sidewall having a first end and a second end with an opening extending through said first and second ends, said body defining a slot disposed proximate one of said first end or second end, said slot extending in a direction transverse to said opening and through said outer sidewall. The coupler also includes a latch assembly including at least one outer member being disposed on said body externally exposed of said outer surface and connected with an inner member being disposed through said slot, said outer member protruding from said outer surface and reciprocating with respect to said outer sidewall, said inner member reciprocating within said slot and having an aperture corresponding with said opening, whereby said body is releasably connectable with a piece of fluid transport equipment through said inner member. The coupler further includes an overmold portion formed on said outer sidewall of said body, said overmold portion defining a material molded over said body as an additional layer, such that said overmold portion is formed substantially about said outer sidewall, said overmold portion including a shroud portion partially covering said outer member of said latch assembly, said shroud portion being a wall extending outward from the outer sidewall and adjacent and around said outer member of said latch assembly, said wall extending in a direction transverse to said outer surface, and a top portion of said wall protruding from said outer surface at least a same distance as an outermost portion of said outer member protrudes from said outer surface when the outer member is in a non-depressed state.

The Action generally references Figures 4 and 5 of Laible as disclosing all of the limitations of claim 1. The Action does not specifically identify what structures shown in Figures 4 and 5 of Laible correspond to each of the limitations. In fact, Liable lacks many of the limitations recited by claim 1.

For example, Liable fails to disclose a latch assembly including at least one outer member being disposed on said body externally exposed of said outer surface and connected with an inner member being disposed through said slot, said outer member protruding from said outer surface and reciprocating with respect to said outer sidewall, said inner member reciprocating within said slot and having an aperture corresponding with said opening, as recited by claim 1. Neither the locking member 92 nor the locking sleeve 96 is a latch assembly including both an outer member and an inner member as required by claim 1. For example, the locking member 92 lacks an outer member protruding from the outer surface, and the locking sleeve 96 lacks an inner member reciprocating within a slot.

Further, Laible fails to disclose an overmold portion formed on said outer sidewall of said body, said overmold portion defining a material molded over said body as an additional layer, such that said overmold portion is formed substantially about said outer sidewall, as recited by claim 1. Liable fails to disclose or suggest that any structure, such as locking sleeve 96, is an overmold portion defining a material molded over the body as an additional layer, as required by claim 1. In fact, locking sleeve 96 is axially slideable between locked and unlocked positions (Liable, col. 6, ll. 40-43) and therefore is not an overmold portion.

Liable also lacks a shroud portion partially covering said outer member of said latch assembly, said shroud portion being a wall extending outward from the outer sidewall and adjacent and around said outer member of said latch assembly, said wall extending in a direction transverse to said outer surface, and a top portion of said wall protruding from said outer surface at least a same distance as an outermost portion of said outer member protrudes from said outer surface when the outer member is in a non-depressed state, as recited by claim 1. Since Liable lacks both a latch assembly and an overmold portion, Liable necessarily lacks the shroud portion recited by claim 1.

For at least these reasons, Liable fails to anticipate claim 1. Reconsideration and allowance are requested.

VIII. Summary

It is earnestly requested that the Examiner's rejection of the above-noted claim be reversed. Favorable reconsideration in the form of a Notice of Allowance is respectfully requested. Please contact the undersigned attorney with any questions regarding this application.

Fees related to the submission of this paper are being charged to an authorized credit card in the amount of \$500 for a large entity. The Commissioner is hereby authorized to charge any additional fees which may be required for entry of these papers or to credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,
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Date: August 13, 2007

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Attachment: Appendices

CLAIMS APPENDIX

1. (Previously Presented) A coupler device for fluid transport, comprising:

a body including an outer surface being a circumferential outer sidewall, said outer sidewall having a first end and a second end with an opening extending through said first and second ends, said body defining a slot disposed proximate one of said first end or second end, said slot extending in a direction transverse to said opening and through said outer sidewall;

a latch assembly including at least one outer member being disposed on said body externally exposed of said outer surface and connected with an inner member being disposed through said slot, said outer member protruding from said outer surface and reciprocating with respect to said outer sidewall, said inner member reciprocating within said slot and having an aperture corresponding with said opening, whereby said body is releasably connectable with a piece of fluid transport equipment through said inner member; and

an overmold portion formed on said outer sidewall of said body, said overmold portion defining a material molded over said body as an additional layer, such that said overmold portion is formed substantially about said outer sidewall, said overmold portion including a shroud portion partially covering said outer member of said latch assembly, said shroud portion being a wall extending outward from the outer sidewall and adjacent and around said outer member of said latch assembly, said wall extending in a direction transverse to said outer surface, and a top portion of said wall protruding from said outer surface at least a same distance as an outermost portion of said outer member protrudes from said outer surface when the outer member is in a non-depressed state.

2. (Original) The coupler device according to claim 1, wherein said body including a connection means disposed at one of said first or second ends opposite said slot, whereby said connection means being connectable to a fluid transport system.

3. (Original) The coupler device according to claim 2, wherein said connection means being a groove residing between said outer sidewall and said opening, said groove being a socket fitting.

4. (Original) The coupler device according to claim 1, wherein a part of said outer surface of said body having a recessed face disposed about said slot and extending in a direction along said outer surface toward said first and second ends.

5. (Original) The coupler device according to claim 4, wherein said recessed face being substantially planar, said recessed face being engageable with a portion of said outer member, said portion reciprocates with respect to said recessed face and over said slot.

6. (Original) The coupler device according to claim 1, wherein said opening of said body substantially being radially symmetrical.

7. (Original) The coupler device according to claim 1, wherein said body is constructed of a molded material, said molded material being more rigid than said overmold portion.

8. (Original) The coupler device according to claim 1, wherein said outer member of said latch assembly including an actuating member, a biasing member and a retaining member, said actuating member and said retaining member being connected at oppositely disposed ends of said inner member and outside said slot, and said biasing member being between said actuating member and said inner member, said biasing member being disposed on said outer surface over said slot and enabling said actuating member and retaining member to reciprocate with respect to said outer surface.

9.-15. (Canceled)

16. (Previously Presented) The coupler device according to claim 7, wherein said body is an injection molded rigid plastic material.

17. (Previously Presented) The coupler device according to claim 16, wherein said rigid plastic material is polypropylene.

18. (Previously Presented) The coupler device according to claim 7, wherein said overmold portion is an injection molded low tolerance material.

19. (Previously Presented) The coupler device according to claim 18, wherein said low tolerance plastic material is a soft thermoplastic rubber material.

20. (Canceled)

EVIDENCE APPENDIX

I. Office Actions and Amendments/Responses

1. Restriction Requirement mailed April 22, 2004
2. Response to Restriction Requirement filed May 18, 2004
3. Restriction Requirement mailed July 21, 2004
4. Response to Restriction Requirement filed August 12, 2004
5. Non-Final Rejection mailed September 10, 2004
6. Amendment and Response filed December 9, 2004
7. Final Rejection mailed March 3, 2005
8. Amendment and Response filed June 3, 2005
9. Advisory Action mailed June 15, 2005
10. Amendment and Response filed August 3, 2005
11. Non-Final Rejection mailed August 19, 2005
12. Amendment and Response filed November 3, 2005
13. Final Rejection mailed January 6, 2006
14. Amendment and Response filed March 30, 2006
15. Advisory Action mailed April 10, 2006
16. Non-Final Rejection mailed May 18, 2006
17. Amendment and Response filed July 17, 2006
18. Final Rejection mailed October 12, 2006

II. References Relied Upon by the Examiner

1. U.S. Patent No. 5,890,517 to Laible

RELATED PROCEEDINGS APPENDIX

None.